



Doc Code: AP.PRE.REQ

PTO/SB/33 (07-05)

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

081468-0277120

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Signature _____

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Application Number

09/777,460

Filed

February 8, 2001

First Named Inventor

VAN DIJK et al.

Art Unit

2624

Examiner

V. BALI

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 54248

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

Christopher F. Lair

Typed or printed name

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Telephone number

April 9, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket: 081468-0277120
Client Reference: P-0172.010-US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

Confirmation Number: 3244

VAN DIJK ET AL.

Application No.: 09/777,460

Group Art Unit: 2623

Filed: February 8, 2001

Examiner: V. BALI

Title: OBJECT POSITIONING METHOD FOR LITHOGRAPHIC PROJECT ION
APPARATUS

April 9, 2007
April 8, 2007 = Saturday

ATTACHMENT SHEETS TO
PRE-APPEAL BRIEF CONFERENCE REQUEST

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir,

In response to the Final Office Action dated November 11, 2006 and the Advisory Action dated March 9, 2007, Appellant hereby requests that a panel of examiners formally review the legal and factual basis of the rejections in the above-identified application prior to the filing of an appeal brief. This request is being concurrently filed with a Notice of Appeal. The review is requested for the reasons provided below. A total of 5 pages are provided.

APPEALED REJECTIONS

Appellant appeals the rejections of claims 1 and 11 under 35 U.S.C. §103(a) based on *Cox et al.* (U.S. Pat. No. 6,420,716) (hereinafter "Cox") in view of Shigeo (Japanese Pat. App. Pub. No. JP 6-302495), and the rejections of claims 2-7, 9 and 14-20 under 35 U.S.C. §103(a) based on Cox in view of Shigeo and van den Brink *et al.* (U.S. Pat. No. 4,778,275) (hereinafter "van den Brink").

ARGUMENTS FOR TRAVERSAL

Appellant traverses the prior art rejections under 35 U.S.C. §103(a) at least because, as will be evident by the following discussion, the cited portions of the applied references, whether taken alone or in combination, ***do not teach or suggest each and every element*** recited by the claims.

Claim 1 recites a method of positioning an object at a required position on a first object table in a lithographic projection apparatus, comprising, *inter alia*, “measuring a displacement between the first position of the object and a required position of the object on the first object table, removing the object from the first object table, and then ***translating the removed object***, the first object table, or both, relative to each other ***by substantially the measured displacement***, in a ***direction substantially parallel to the plane of the first object table***.”

As conceded at page 3 of the Final Office Action, the cited portions of Cox fail to disclose, teach or suggest the above noted aspects of claim 1. The cited portions of Shigeo are relied upon as allegedly remedying the deficiencies of Cox. The Advisory Action states “the claims are given their broadest reasonable interpretation” (see page 2 of the Advisory Action) and the Final Office Action asserts that “Shigeo teaches the displacement is measured with respect to the first object table, (*see* the constitution the rotation angles and the Figure 8c) and translating the object relative to the object table, removing the object from the first object table in order to placing it back on to the table, (*see* the constitution the reticle 12 is taken out “remove” and the stage is turned and place it back at the required position, after the reticle is turned in the direction by an angle “translating the object relative to the object table”), as claimed.” (See page 3 of the Final Office Action). The Advisory Action also states that “the rotation is read as translation.” (See page 2 of the Advisory Action). Respectfully, Appellant submits that these arguments fail to properly consider the claim language and thus in error as they are based upon errors of fact and omit an essential element to establish a *prima facie* rejection.

By way of review, the cited portions of Shigeo merely disclose removing the reticle 12 from the stage 11, rotating the stage 11, placing the reticle 12 back on the stage 11 and rotating the stage 11 in the reverse direction to return the reticle 12 to its original condition. (*See* Abstract and FIG. 8 of Shigeo). The cited portions of Shigeo, therefore, only teach “rotating” the stage 11 and does not, in any way, teach ***translating*** the removed object, the

first object table, or both, relative to each other *by substantially the measured displacement, in a direction substantially parallel to the plane of the object table*, as required by claim 1.

The Final Office Action and Advisory Action equates the language “translating the removed object, the first object table, or both, relative to each other by substantially the measured displacement, in a direction substantially parallel to the plane of the first object table” of claim 1 with rotating the stage 11 of Shigeo. This is improper.

First, although, “during patent examination, the pending claims must be ‘given their broadest reasonable interpretation consistent with the specification’”, “[the] broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.” (See MPEP 2111, emphasis added). Clearly, a rotation is not a translation.

In support of this, MPEP 2111.01 states “words of the claim must be given their plain meaning unless **>the plain meaning is inconsistent with<** the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004) (**Ordinary, simple English words whose meaning is clear and unquestionable**, absent any indication that their use in a particular context changes their meaning, **are construed to mean exactly what they say**.) (Emphasis added). “The ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” (See, e.g., MPEP §2111.01 citing Phillips v. AWH Corp., 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*), emphasis added).

The term “translation” is defined as (1) “a transformation of coordinates in which the new axes are parallel to the old ones” or (2) a “uniform motion of a body in a straight line.” (See Merriam Webster Dictionary). The term “rotation” is defined as “the action or process of rotating on or as if on an axis or center” or (2) “the angular displacement required to return a rotating body or figure to its original orientation.” (See Merriam Webster Dictionary). The English definition of the term “translating” is consistent with that of the specification. As such, one of ordinary skill in the art would readily understand that “translating the removed object, the first object table, or both, relative to each other by substantially the measured displacement, in a direction substantially parallel to the plane of the first object table” is not the same as rotating a stage. Stating otherwise would give an interpretation of the term “translation” that is inconsistent with (1) the English definition of this term, (2) the usage of this term in the specification and (3) the interpretation of this term that those skilled in the art

would reach. Thus, the conclusion in the Final Office Action and the Advisory Action that the rotation of Shigeo is the same as the translation of claim 1 is simply incorrect.

Moreover, no amount of rotation will put the reticle 12 of Shigeo in a proper lateral location on the reticle stage 11, as specified in claim 1. Specifically, no amount of rotation of the reticle 12 and/or the reticle stage 11 in Shigeo will cause a movement by a measured displacement between the first position of the reticle 12 and a required position of the reticle 12 on the reticle stage 12. Rotation of the reticle 12 and/or reticle stage 11 simply will not cause displacement of reticle 12 from one position to another; it will simply change the orientation of the reticle 12 on the reticle stage 11. So, assuming *arguendo* that the reticle 12 in Shigeo is not aligned with vacuum holes on the reticle stage 11 to hold the reticle 12, rotating the reticle stage 11, as suggested by Shigeo, does not, in any way, solve this problem if those vacuum holes are located at a lateral position away from the reticle 12. Only translation by a displacement will solve that.

Not only do the cited portions of Shigeo fail to disclose, teach or suggest “*translating* the removed object, the first object table, or both, relative to each other *by substantially the measured displacement*, in a *direction substantially parallel to the plane of the first object table*”, Appellant submits that there is no motivation or suggestion to provide these aspects in Shigeo. Shigeo’s alignment method is completely different from that of claim 1. As mentioned previously, Shigeo is merely concerned with aligning the reticle 12 at a proper orientation by relatively rotating the reticle 12 and the reticle stage 11 so that the reticle 12 can be used to accurately expose its pattern on the substrate. Shigeo is not concerned with, and provides no motivation for, relatively translating the reticle 12 and the reticle stage 11.

In support of this, Appellant submits that translating the reticle 12 relative to the reticle stage 11 in Shigeo would in no way correct the orientation of the reticle 12 as required in Shigeo. Specifically, if a rotational misalignment exists between the reticle 12 and the reticle stage 11 as identified by Shigeo, no amount of translation will reduce this misalignment. Further, any translation of the reticle 12, the reticle stage 11, or both, relative to each other in Shigeo after rotating the reticle 12 relative to the reticle stage 11 will introduce a lateral misalignment between the reticle 12 and the reticle stage 11, which may drastically impact the support of the reticle 12. Thus, there is no reason, motivation or suggestion as to why one of ordinary skill in the art would translate the reticle 12, the reticle stage 11, or both, relative to each other in Shigeo based on Shigeo’s teachings (and indeed, the cited portions of Shigeo instead merely disclose rotation).

Accordingly, any proper combination of the cited portions of Cox and Shigeo cannot result in any way in the invention of claim 1.

The cited portions of van den Brink fail to remedy the deficiencies of Cox and Shigeo. The cited portions of van den Brink are directed to aligning a mask MA with a substrate W – which is clearly different from positioning an object at a required position on an object table, as required by claim 1. Accordingly, any proper combination of Cox, Shigeo and van den Brink cannot result, in any way, in the invention of claim 1. Thus, the combination of Cox, Shigeo and van den Brink fails to present a *prima facie* case of obviousness.

Claim 11 is patentable over the cited portions of Cox, Shigeo, van den Brink and any proper combination thereof for at least similar reasons as provided above for claim 1, and for the features recited therein. Claims 2-7, 9 and 14-20 are patentable over the cited portions of Cox, Shigeo, van den Brink and any proper combination thereof at least by virtue of their dependency from claims 1 and 11, respectively, and for the additional features recited therein.

CONCLUSION

Therefore, it is respectfully requested that the panel return a decision concurring with Appellant's position and eliminating the need to file an appeal brief because there are clear legal and/or factual deficiencies in the appealed rejections.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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